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## THE RUSH TO THE KLONDIKE.

### ALASKA'S NEW GOLD-FIELDS—THEIR PRESENT OUTPUT AND FUTURE PROMISE.

BY SAM STONE BUSH.

#### I.—THE EXODUS.

IT took two and a half years from the first discovery of gold in California for the population of that territory to increase from 15,000 to 92,000. At least 100,000 prospectors will advance upon Dawson City and its vicinity in the first six or seven months of 1898—less than a year from the time when the world first heard of the new gold sensation. The days of '49 and the great Ballarat rush two years later were peaceful compared to this. Another dramatic fact—this army of gold-hunters will expend for transportation and supplies before the end of the year fully \$60,000,000—four times as much as the probable total output of Klondike gold!

In 1897, between July 17 and September 1, 8,886 passengers and 36,000 tons of freight were carried north from Puget Sound and British Columbia ports. Of this traffic the steamers bound for St. Michael took 1,248 persons and 12,000 tons of freight, while nearly all the balance went

number going through the Chilkoot; the rest—gamblers, tradesmen, and those who failed to get through—are living this winter at the pass towns. These figures were nearly doubled before January 1, but all the late departures went to Dyea and Skaguay, and on account of



THE EMBARKATION OF THE ARGONAUTS, AUGUST 17, 1897.  
(Showing the type of steamship used in transporting prospectors to Alaska.)



SCENE ON THE SEATTLE WHARVES AT A VESSEL'S DEPARTURE WITH PROSPECTORS.

to Dyea and Skaguay, a part branching off to Juneau and Wrangell. About 3,600 got over the passes in this time, at least 3,000 of the

the late season halted for the winter at these places, both of which are growing with wonderful rapidity and fast becoming important towns. Dyea has passed Skaguay in inhabitants and promises to be the metropolis of Alaska. The travel since January 1 has been the capacity of the ships, rates on them have advanced, and a further advance will likely be made as the crowds become greater on the approach of the "open season." Trade and transportation on the Pacific coast are convulsed; excepting in time of war, the century has seen no other such physical happening.

#### WHAT THE YEAR PROMISES IN DEVELOPMENT.

No statistics can be made of the 1898 exodus with any degree of accuracy, but from estimating the movement already well in motion, nearly, if not quite, 100,000 will try to get to the gold.

A majority of the photographs used in illustrating this article—fourteen by the author and six by Mr. J. F. Pratt—have not been published before.

fields. It is doubtful—if my computations on the capacities of the vessels in the Alaskan trade are correct, and they are made from close inquiry—whether the transportation companies can carry so many and their supplies. This capacity shows 75,000 passengers from January to July, with two tons of freight to the passenger, when he will probably require only about one-half ton; and assuming that one-half of the freight will not go inland, but be used at Dyea and other coast points for building operations and transient consumption, would leave a supply tonnage sufficient for an additional 75,000 prospectors. A reduction of rates on the transcontinental roads, such as is threatened, will increase the number wanting to go, in which case the steamship people will manage it somehow, if tardily, even if it is necessary to continue sending steamers from the Atlantic.

This contemplates the situation to July. After that it is believed by those who have looked ahead that a second and greater exodus will begin, for it is pretty certain that the first ships returning from the Yukon in July, and weekly thereafter for a time, will bring such stores of gold, such tales of individual fortunes, and such picturesque details that the larger army, waiting, will break their bonds of indecision. By that time there will be more ships and also better facilities for crossing the passes, and it is probable that these swarming emigrants (of whom three-fourths will go from the United States, about an eighth from Canada, and the rest from the British Isles) will be able to get through to the gold bottom creeks without serious delay, although they will, of course, be too late to do any prospecting till next year.

More ships are needed in the Alaskan trade; more boats on the Yukon and Stickeen rivers, overhead and surface roads on the short passes—these are the things needed now, the things to be done at any cost, so they are done quickly, and the future will take care of the construction of more permanent lines and better facilities.

#### WHAT THIS STAMPEDE MEANS TO TRADE.

What does an exodus of 100,000 to the Klondike mean to the business of the country? I

have figured it out on the basis of cost and proportion as ascertained, and it is this: That each man of them would average first and last an expenditure of \$600, making a grand total of \$60,-

000,000. The United States railroads would get \$5,000,000 of this; Seattle merchants and hotel keepers, for outfits and transient guests, \$25,000,000; the prospector's home town and towns en route to Seattle and other Pacific



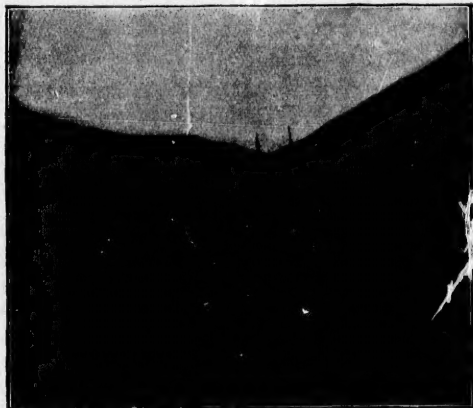
THE OLD PRESBYTERIAN CHURCH AT JUNEAU.

coast points, \$5,000,000; ship companies, for transportation to Alaska, \$10,000,000; and for the transportation of freight over passes and in Alaska, \$15,000,000. This would represent only the actual needs of this many prospectors, and would cause a large increase in other business directly connected with it.

#### THE PROBABLE OUTPUT OF 1898.

Up to the time of the Klondike discovery the Yukon placer output as tabulated by the national authorities was, in grand total, \$3,310,500. Almost the whole of this amount resulted from the work of the years 1886 and 1896. The output from 1880 to 1886 was comparatively insignificant.

The predictions for the receipts from the Upper Yukon in 1898 are guesswork, although the latest returned miners make it appear that it will be over



DYKE IN SEPTEMBER, 1897—NOW A TOWN OF ABOUT 5,000.

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\$20,000,000. But if it is \$12,000,000, the most conservative estimate now offered, it will be wonderful, and will mean that with all the willing hands now there and the hundred thousand or more who got through in 1898 the yield for 1899 will approximate \$50,000,000.

After that it depends on transportation facilities to get people and machinery into the country to multiply the placer yields, and a few years more will probably see on the Yukon ranges the steady crunching of ore by stamp mills to add to the world's gold supply.

#### IS THERE STILL ROOM FOR PROSPECTORS?

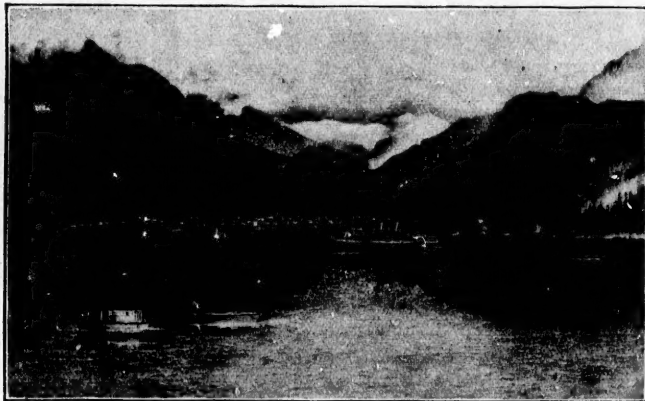
The report from Captain Ray, United States army, from the interior, stating that no new placers have been discovered for eight months, is doubtless true, but it is misleading. An explanation should go with it, and if entirely fair it would say that all those on the Yukon last summer were occupied, not with prospecting for new discoveries, but to take



PROSPECTORS MOVING BOAT TIMBERS OVER CHILKOOT TRAIL.

up claims on the creeks known to be rich or prospecting creeks in the same localit', which no doubt Captain Ray classes as the old discovery.

Those who got to the Upper Yukon in the fall did so too late for prospecting, as elsewhere explained. If Captain Ray felt that the food situation demanded a warning to check the senseless ones going in unprepared, he was probably justified.



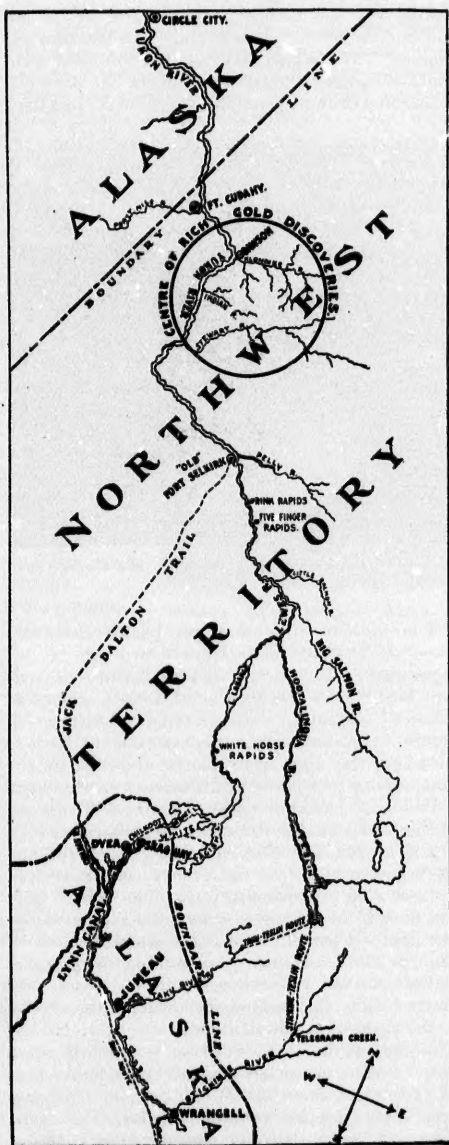
SKAGUAY TOWN, FROM THE HEAD OF THE LYNN CANAL, SHOWING THE WHITE PASS IN OCTOBER, 1897.

The impatient intending prospector, however, who fears that the lands of gold will all be occupied unless he hastens, at the sacrifice of reason, to the gold creeks, should take a glance at a map of North America. Alaska embraces more square miles than twenty-one States of the Union, including the area from North Carolina northwest, taking in Illinois, and thence with the lakes to the North Atlantic coast of Maine. Think of all the rivers in these twenty-one States and of all the creeks that flow into all these rivers, of the branches that feed the creeks, and you have a placer area for prospecting to hide a half million men from one another by a distance to make each feel lonesome. And in the Klondike district there is the land, mainly mountains, feeding the streams, where years hence will be found rich quartz ledges that will again awaken the world to the sight of a new Havilah.

To digress here in order to make this point clear. I met a miner last summer on a steamer who was returning from the Klondike, and studying the map we had laid before us, I asked what there was of water in that half inch of space between the mouth of the Klondike and Stewart rivers, as gold was plenty on both. He said: "Oh, eight or ten pretty big streams; you might call 'em rivers." Now, here was prospecting ground to employ and lose all the people who got through in 1897. They will not crowd, and the exodus

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THE KLONDIKE REGION AND THE ROUTES  
TO DAWSON CITY.

of 1898 will only go before to point the way to creeks that are liable to pay, even if they do not call for that joke of the miner's—"where the

gold is so thick that you have to mix sand in to sluice it."

A COAST-LINE GREATER THAN THE CIRCUMFERENCE  
OF THE EARTH.

There are 11,000 islands along the coast included in this Alaskan area, and with the numerous inlets they give a coast-line 11,000 miles longer than the coast-line—Atlantic, Pacific, and Gulf—of the United States, or greater than the circumference of the earth. And consider the western limit of these possessions—there is the island of Attou, the farthest of the Aleutian group; its longitude is as far west of Seattle as Portland, Maine, is east of Seattle. No matter what reports may be spread on this subject, those who are contemplating a hazard of new fortunes along the mighty Yukon need not be deterred by a fear of crowding or richness of prospecting ground, as those who have a right to know express unbounded confidence in the richness of the placers, and with the exodus of 1897 lending willing hands with the pick, it may be that the results of 1898 will turn the world Klondike-mad and pale the memory of "Kaffirs" in Europe. Indeed, just as this is going to press there are reports from experts who have been over the ground thoroughly which make it quite within the things to be expected that there will soon be even richer "finds" than those already made—and it is not unlikely that these may be in Alaska proper. There can be no doubt that this northwestern portion of our continent is destined to undergo a remarkable development in the next few years.

There is serious work to be done in Alaska and the Northwest Territory—the making of a new world. There are many dissenters from this opinion, but their dissent will only serve the purpose of making all effort more effective, with more forethought and more care. It was much the same when the East first heard of the finding of gold on Captain Sutter's farm in California in 1849. Evidence was produced of the "finds," and the plains and Rockies were cut into wagon roads, while the Indian lurked along the way and took a scalp now and then. This color of danger gave the Eastern press a chance to write lurid pictures of massacres and bloodshed and to place the price of a placer at death, but the "movers" wagons continued to turn their wheels toward the setting sun, and to-day the fruit of that movement makes the writer of a recent article point with much reason to our Pacific coast as the changing front of the world. In point of fact, many of the men who have made the longest stays in that region are the hardiest-looking and finest physical specimens one could well find.

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One argonaut after another has testified to the tremendous muscular exhilaration experienced in crossing the Chilkoot even with the thermometer at all sorts of numbers below zero. And this is simply natural. The freezing purifies the air they breathe, the cold stirs the blood and muscles to action, the fare is plain but wholesome, and there is that great solitude to feed the soul and that feeling of comradeship—truth to your fellow-man—all of which give health to the body and mind. There has been an honesty remarked in these first dwellers in the Yukon basin and in the travelers over the prairies, and it is due to the absolute dependence of every man on the other for protection. It was the same in the early days of California, and changed and was lawless in the extreme while the Government was learning how to make the law effective, and it will be the same way on the Yukon, no doubt.

#### HARDSHIPS AWAITING THE GOLD-SEEKER.

Let no one start out, though, without clearly realizing that the Yukon country is still far from a pleasure resort. The camp life and work of the miner on the Klondike is one of great hardships, the climate and the long winter nights hedging it in with ever-present and harsh limitations. It is a routine of sleep until you wake and work, build fires and cook the brief fare until you sleep. The thermometer goes down to forty or fifty degrees below in January, and sometimes lower, while in the summer-time it will go to one hundred degrees above, and when the mercury is highest the mosquitoes will be the densest. The latter are one of the greatest trials that the pioneer has to encounter, and the most hardened emigrant from the Jersey flats will be surprised at the vicious onslaughts of these little plagues, who have actually been known to drive the deer and bear into the water for shelter.

The wise prospector will pay especial attention to the matter of reaching his destination in time to get comfortably settled and build his house before the long winter sets in. Tents are used for camping until a permanent location is made,

and then a "shack," or log hut, generally of one room, is erected. A dirt floor usually answers, and the roof is thatched with boughs, on which is piled mud a foot or two thick; this soon freezes, making a very warm house if the sides are also banked with mud and the logs chinked in the same way.

#### HOW THE MINERS LIVE.

The best fire is one built on a square piece of masonry two feet high, much like a blacksmith's forge, and the smoke from this feeds through a pipe, like an inverted funnel, which hangs from the center of the roof, and is fixed to be raised or lowered. About this fire the miners sit in their idle hours, often the meals are eaten off its edge, and many a game of "California Jack" is played across its corners. This open fire in the center of the room is an idea probably copied from the natives. The latter not being so sensitive to smoke let it escape through an opening left in the roof, like their tepee, or cone-shaped tent of poles and mud, being constructed with the apex of the cone left open for the smoke. The supplies, or sacks of flour, meal, bacon, beans, coffee, salt, and the few luxuries, are stored in the same room and jealously guarded. Their shrinking bulk is watched with fear, while the miners declare that the gold is most carelessly



A PICTURESQUE HABITATION ON CHILKOOT TRAIL—WAITING FOR SPRING TO PROCEED NORTH.



THE CHILKOOT SUMMIT IN WINTER.

hung in bags on pegs behind the door, tied up in the arm of a worn-out shirt, or perhaps filled in the foot of a rubber boot.

Few books reach these camps, and fewer newspapers, as neither government carries anything but "first-class mail matter." But I noticed on the passes last summer that nearly every man had a Bible with him, and I saw a number of copies of Shakespeare. And to the man of thoughtful mind I should think that a few good books, hard to exhaust, would be a food needed as much as bacon and beans. Nansen while on the *Fram* got better work from his men because he gave them the diversion of books and music.

Some of these miners build their cabins with a "lean-to" which covers the shaft and protects the partner at the windlass as he draws up the buckets of frozen dirt. The plan of working these placers is for two men to work together, one down in the drift, who, by keeping a fire going while he sleeps, thaws enough ground to pick it out and load it in the bucket when awake, while his partner draws the bucket up the shaft with a windlass, made like the old-fashioned well. This dirt he piles outside, and there it stays until spring, except for an occasional "panning" to see how rich the dirt is running.

When the springs thaw and begin to trickle down the mountain the miner builds his sluice-box, and turning the water into its head, incloses it for just the necessary current, and then feeds the box at its upper end with this dump pile. The water continues what nature began, and the gold in the sand sinks against cleats on the bottom, while the dirt passes away. The "rocker" is also used, and every miner has his little preferences as to details



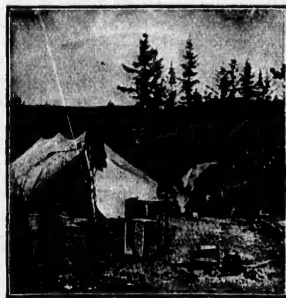
THE INDIAN PACKER AND HIS PONY.

of method, but as yet on the Yukon they are primitive indeed.

In the towns, particularly at Dawson, Dyea, and Skaguay, everything is "wide open"—drinking, gambling, and the mad dance of the miners and their women are almost a "continuous performance" through the winter. Of course the crowd of miners change, but the women don't. The men come into town from the mines at intervals for a diversion from their monotonous life. This monotony is liable to make the settlements of the Yukon the most wicked in the history of camp towns, for human nature will "even up" things.

It was never my belief that there would be a serious famine at Dawson or on the Klondike this winter. Food might go to very high prices and men might have to economize in its use, but with the personal knowledge I had that three-

fourths of those who got through the passes last year went with a year's supply, made me feel sure that this, with the tonnage that got up the Yukon, made a gross supply which would keep the wolf away from the "shack" if men remained together. A



THE ARGONAUT'S CAMP ON CHILKOOT TRAIL.

miner in that country will charge you the highest market prices for food if you have the money to pay or the strength to work, but be you penniless and with no work to do, it is his spirit to divide his last crust with you, and with good grace.

The very best advice that can be given on "outfitting" for a year or two in that land of the long nights, without particularizing, is to take only what is absolutely needed, and be sure that it is of the very highest quality. A good sleeping-bag is worth a dozen a little cheaper; one well-made coat is worth many inferior ones; and so on through the list of clothing, tools, and food. If you do decide to cut on quantity, let it be on the clothes.

## II.—HOW TO GET TO DAWSON CITY.

The most vital question that these gold-seekers are asking is, What is the best route? Having kept in close touch with the man who is going to the Yukon, I have concluded that he will have



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as his destination the tributaries of that river between the mouth of the Hootalinqua and Dawson City, possibly going further down to Circle City or Forty Mile, and I will give my conclusions as answering to this destination.

#### THE ALL-WATER ROUTE.

There is one all-water route, by steamship to St. Michael, 3,000 miles from Puget Sound and

4,000 from San Francisco, thence up the Yukon River 1,880 miles to Dawson City. This route is the easiest and at the same time the one entailing more uncertainties, more loss of time, money, and opportunity than any heretofore taken; but on account of its being possible

during a very brief season to ship from Puget Sound and be unloaded with your belongings at Dawson City, right in the heart of the first great discoveries appeals strongly to the average man. It would take all the ships on the Pacific coast, however, to move the gold-seekers over this route during the short season it is open. The first ships going via St. Michael in 1898 are scheduled to leave Puget Sound about June 10, but it is not likely that the complementary boats to take the cargoes will be able to start up the Yukon until nearly a month later, because the mouth of the Yukon is not free of ice for four or five weeks after it breaks up at its sources at Lake Lindemann or Lake Teslin—about the last of May. This upper ice flows north, cuts under the ice where it has not yet thawed, or piles on it, and freezing again forms a great icy mass; this again breaks and flows farther down stream, ending in a grand gorge about the mouth. At the mouth the volume of water flowing into Bering Sea is so great that it is fresh ten miles out, which also freezes and aids in locking this entrance. At many points on the trip up to Dawson the river changes its channel each season, and new bars are formed, often necessitating dredging to enable the boats to find a channel.

The traveler should reach Dawson City by the first of August, provided he got started up

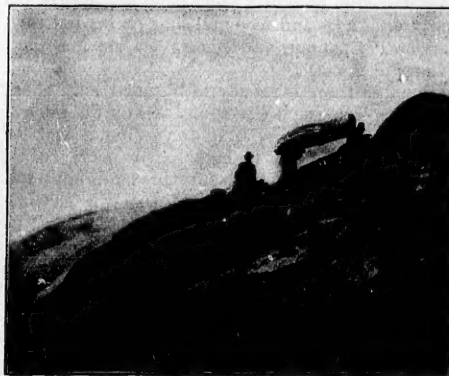
the river on one of the first boats, and if he expects to labor for others at a per-diem wage this trip is the easiest; but it will cost as much in ready money as going by either the White or Chilkoot passes (leaving Puget Sound May 20), and it will cost in food as much more and in time one year more if the gold-seeker expects to make and work his own location.

#### THE BRIEF PROSPECTING SEASON.

This is predicated on the shortness of the prospecting season, which in many creeks is confined to June and July, because from October to June the weather is too severe. Men say they will prospect in the winter-time, but the Yukon miner tells me that they don't; that they must get their shaft down in the open season, so their work will be underground when winter closes in. The months of August and September, too, are not profitable for prospecting, since the melting of the snow and glaciers on the mountains fills and overflows the creek bottoms. Should the gold-seeker have as his destination some of the streams farther up than Dawson, it will require additional time for the much slower progress, for it is up a swift current in an open boat instead of down stream, as from the overland passes. If one's destination is Stewart River, it is better to be at Lake Lindemann or Lake Teslin at a given time than at Dawson City. One can't be at Dawson City by the all-water route until at least two months later than he can reach these head-



AN ENGINEER SIGHTING THE SUMMIT.  
(This was the last photograph taken on the Chilkoot in the winter of 1897-98, by Arthur Cobb, C.E.)



NEAR THE SUMMIT OF CHILKOOT, FOURTEEN DAYS' WORK FROM DYEA, EIGHTEEN MILES BEHIND.

waters. So the water route loses practically all the prospecting season, while the short passes save six or seven weeks of it.

I know the actual hardships on the easier trails from "packing" across the White and Chilkoot passes, and have intimate knowledge



from people on whom one should rely as to the other routes. However, aside from all this the question of climate fixes the question of date when you can get into the country, and the question of date fixes the value of the first year's results.

#### THE OVERLAND TRAIL TO LAKE TESLIN.

What is known as the Teslin route via Wrangell and the Stickeen River to Telegraph Creek, thence by overland trail 154 miles to Lake Teslin, also has its advocates. They point to the fact that after getting to Lake Teslin all the rest of the trip is down stream, avoiding dangerous rapids and troublesome portages. This is undoubtedly true; but what of that 154 miles of land? It would be nothing to balk an earnest man if he was going to trudge it with his lunch-basket and a good stout staff; but where is the year's supply of outfit—the thousand pounds? How long will it take him to lug that over on his back, making at the most ten miles a day for each hundred pounds? Or, if he has money to buy two horses and feed and shoe them, and each carries 250 pounds and makes 20 miles a day, what will it cost?

Suppose there is money to buy and ship these horses to Telegraph Creek and to buy their feed: allowing a reasonable time for accidents and for moving the feed for the horses, it is plain that it will take at least a month for this land trip, and the cost will be double that of the White, Chilkoot, or St. Michael trips. However, if cost or hardship cuts no figure and the traveler starts early over the frozen snow so as to be at Lake Teslin by the latter part of May, he will be in an excellent position to reach the gold district early in the prospecting season.

#### THE DALTON ROUTE.

The Dalton trail, from near the mouth of the Chilkat River overland to Fort Selkirk, 260 miles, is purely a cattle trail. It is good for pack animals and particularly suited to them in the "open season," because along its way are meadows to feed them; but it is only profitable to pack over this route where the animals are to be sold down below, and it will not be used much by the pros-

pectors until a surface railroad is built over it—an improvement likely to come within the next few years.

The Canadian routes are out of the question for present needs, on account of the distance of overland journeys.

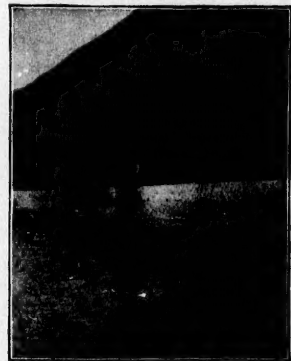
The Taku route, leading out from Juneau, is quite similar to the Teslin route from Wrangell, only not so good for pedestrians, but better for railroad-building.

#### THE MOST FEASIBLE ROUTE VIA CHILKOOT PASS.

This narrows down the route question to the Chilkoot and White passes. Going by the White there is forty-five miles of land from ship navigation to canoe navigation. The Chilkoot trail is one-half this distance. The gradients on the White are less as an average profile, the summit of the White being 2,500 feet above sea-level and the Chilkoot 3,600 feet; but there are more ups and downs and more bogs on the White, and altogether, mile for mile, the Chilkoot is very much the easier proposition.

It starts out from the town of Dyea, up a sandy and boulder-strewn valley for eight miles to the mouth of the canyon—a point where the valley narrows in an easterly deflection—and from here it is four miles of very hard travel to Sheep Camp. It leads out up the mountain side and is ever up and down, over the spurs and across the bogs and streams; one minute you are exerting yourself to the utmost to pull your boot out

of the mucky black stuff, and the next are pulling yourself up a rise by holding to the roots of a tree; then comes a slide down a grimy stone, and if you light squarely must balance yourself well over the log across the stream; and again up and down, until you wonder if the



HOW STREAMS ARE CROSSED—THE AUTHOR WADING TAIYA RIVER.

pack on your back is petrified into a lead-bearing stone. From Sheep Camp the ascent becomes greater as you go up the canyon, and two hours will put you in sight of the famous pass, that forbidding door to Eldorado. From this point it does not look far to the sheer granite wall with



AN INDIAN PACKER IN HIS PICTURESCUE GARR AT CRATER LAKE.

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the two little depressions in the top. The one to the left, and the higher one, is the trail, and from this first view, three miles away, you can see a thread-like path wind up to it. Moreover, by careful scrutiny, if your eyes are good, you can perceive little specks moving over and up the "granite clouds"—they seem the atoms of hope.

#### THE FAMOUS SUMMIT.

A little farther, at Last Camp, horses are usually unpacked. The climb from here to the top is like a great pair of steps, uneven and each step growing larger as you get nearer to it, but patience and frequent rests will get you finally to the summit. The scene about you becomes indescribably grand as you toil up this ascent, the valleys lying below like strips of green, with a stripe of silver where the little Taiya River shows; above, all space seems to be frozen and locked with glaciers; the birds are singing down there where you were an hour ago, and the poppy is gorgeous and indolently sways in the summer air; but up here it is perpetual winter, and when you gain the top of the summit the winds give you an icy kiss like death.

#### LAKE LINDEMANN AND THE BOATS.

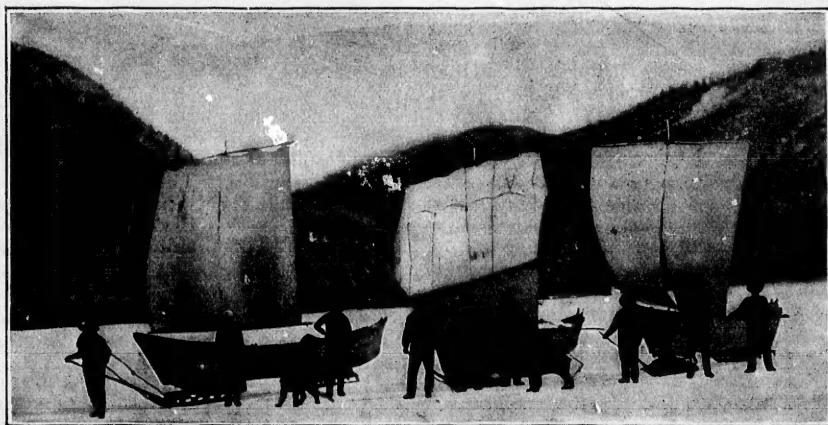
A quarter of a mile beyond and five hundred feet below is Crater Lake, and the trail twists to the right of it, on past Long Lake to Deep Lake, and at last to the head of navigation, Lake Lindemann. From the summit to Lindemann it is rocks and bogs and some easy going, the distance being less than eight miles. Here is where boats are built for the river journey, and it is necessary to get timber from the forests two

miles away—perhaps much further by this summer, as suitable timber is scarce and fast being cut. There is a small sawmill at this place and



LOOKING NORTH FROM SUMMIT OF CHILKOOT PASS,  
SHOWING CRATER LAKE.

some boats are being built this winter, but they will be exhausted with the first movement north, and again plain bateaus will go to prohibitive prices, just as during the past season, when they actually sold a boat to hold two men and a ton of supplies for \$575. It takes two men ten days of hard work to construct one of these boats out of the forest wood. The tree is found, felled, and the whipsaw makes the boards; then it is a question of shaping and putting together, calking and launching.

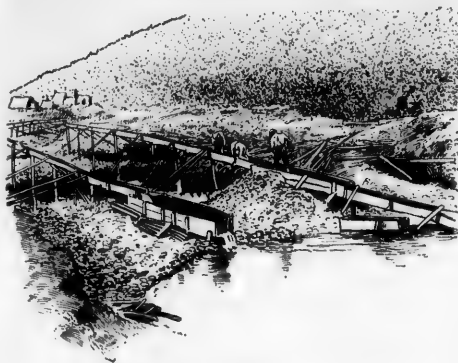


By courtesy of McClure's Magazine.

CARRYING-BOATS ON THE YUKON.

## DOWN THE RIVER.

From this point to Dawson is plain sailing down stream, except a few short portages, one a quarter of a mile, another below Lindemann a mile and a quarter, and not forgetting to except several rapids, the most dangerous of which is the White Horse. The channel through these rough waters is better known now than when they caused serious consequences to men and supplies early last summer, and it is understood that there are men making a regular business of



SLUICING ON BONANZA CREEK.

Redrawn from photograph.

taking boats through for a few dollars—a very trifle compared with the former dangers. One poor fellow was in the van of the rush early last season, and after many hardships reached this place, shot at the rapids, struck the rocks, and lost boat and supplies. It is related that being washed against the lower shore and realizing his helpless condition (his entire possessions being reduced to a single can of a famous baking powder), he shot himself, and a board now marks the place where he was buried by those who came after.

## THE QUESTION OF TEMPERAMENT.

I have given a description of the Chilkoot Pass as I know it, to show the character of this sort of travel and to say this is the very best route to the gold district. It is not an engaging picture, but it is true that what a man really thinks of such a rough adventure depends largely on his nature. Two men go in and live through all the sensations and return to tell their story: one is a harrowing, tearful tale, the other rough and hard, but with lots of fun for all that; and there you are. It is often the case that one man will weight down a whole party. He may be a good fellow, too, in a way, but his disposition hangs

heavy, while another will lift a crowd through all manner of hardships by his elasticity of spirits and courage to do, like Kipling's "Eathen: " "And he lifts 'em, lifts 'em, lifts 'em thro' the charge that wins the day."

## AN INCIDENT OF THE TRAIL.

I saw this effect of man on man strangely exemplified on the Chilkoot trail at a place they call Pleasant Valley. A big fellow whose clothes and white collar seemed strangely out of place in the pushing horde was under a tree, reclining and at ease, absorbed in a big book that lay open on the ground before him. My curiosity was aroused, and approaching nearer I made out the title of the volume which held him enthralled; it was Nansen's "Farthest North." Now, there was no doubt but that superb story of adventure carried many a pound for the big man, and compensated for so strange a thing as "toting" two such heavy volumes on so arduous a trip, where all is considered worthless that you cannot eat or wear.

## COMING TRANSPORTATION FACILITIES.

The advice given as to route is from the standpoint of existing conditions, or rather the conditions as they existed last year, and does not take into account the aids to transportation over the land routes now under construction or proposed. The physical conditions of the routes other than by way of the Chilkoot or White passes forbid the possibility of any transportation means to handle supplies or passengers this year, except by slow and primitive methods, such as ox or horse pack trains; and no matter how well the promoters of any surface roads on such routes may use the brush of the imagination, their schemes cannot be carried through in 1898. It is doubtful, indeed, even assuming that money in abundance is available for such construction, whether even next year will see any such line in operation over the Stickeen, Taku, Edmonton, or Dalton routes. There will undoubtedly be a narrow-gauge or other surface railroad built over one of these routes, but it is a fair conclusion to say that it will take millions of money and three more years to accomplish it, although within that time part of this distance may be operated to help out on a portion of the trip. I make these broad assertions from my knowledge of the difficulties to be met.

## OBSTACLES IN THE WAY OF ROAD BUILDERS.

On account of the great rainfall near the coast, where such routes begin, it will be necessary to build well up on the spurs or foothills, requiring almost a continuous construction of trestles, fills,



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or cuts—the cuts, too, through granite formations. When once across the mountain range, paralleling the coast, the rains or freshets are not so great, but the snows fall steadily and do not melt until June, the winds blow, and snow-drifts of great depth accumulate at all low grades, necessitating the same construction as on the coast side, but with the addition of almost continuous snow-sheds. It is easy to calculate such construction at the cost of \$15,000 or \$20,000 a mile, but it is another matter actually to do it at twice these figures.

#### THE SKAGUAY WAGON ROAD.

Over the Skaguay trail or White Pass route there is going on a sensible construction for temporary assistance in the shape of a wagon road, over which, if it is ever completed in a satisfactory condition, much freight can be handled by teams. At this writing some seven or eight miles of this road have been built out from Skaguay. It is still in very rough condition, but perhaps with a little more work when the season moderates it will answer the purpose very well. The company proposes to continue this to a point beyond the summit by May or June, but it is known now that operations have been temporarily suspended. This route does not follow the old trail, but keeps up the Skaguay River to the real



THE DWELING OF THE CHIEF OF THE CHILKOOT, AT CHILKOOT VILLAGE.

Photo by J. F. Pratt.

White Pass, a route encountering two or three box canyons closing it in to the width of the stream with sheer cliffs. These places are to be crossed on steel bridges, one of which has been shipped to Alaska. Granting, however, that this difficult enterprise is carried to a successful conclusion, it leaves the traveler at the summit, or twenty miles from canoe navigation at Lake Bennett; and as a land trip, no matter what the topography, is still a land trip, requiring packing,

and the question of transportation of supplies is only slightly assisted. To be sure, the argonaut will give thanks for any relief from the present difficulties, but no real solution of the problem can be expected this year from Skaguay.

#### THE CHILKOOT TRAMWAY.

On the Chilkoot route transportation enterprises appear to have taken a more definite shape, and



A CHILKOOT GRAVE.

Photo by J. F. Pratt.

from the means employed it is reasonable to expect quicker and more certain results. This means is the overhead cable construction, known as the aerial tramway, which from its airy name does not appeal very strongly to the practical mind not acquainted with the system, but which is known to mining engineers as a simple and comparatively inexpensive method of handling supplies destined to go over such a short land trip as offered by the Chilkoot. It is extensively used in very many mining sections to carry ore from quarry to smelter, and one is already in operation at the quartz mines near Juneau, Alaska. It claims as a basis for perfection in this case that it is not dependent on surface conditions; that it is not subject to disturbance from glaciers, landslides, or snow-drifts; that the grades are no barrier to successful operation (as the supports for the cable track and traction cable are built on the points of the profile of the route); and that the tonnage capacity is very elastic.

The stations, or supports, are built on the high points of the route. These consist of large poles, 12 or 14 inches in diameter at the large end and varying from 18 to 30 feet in length; they average about 400 feet apart, but this space can be increased to 1,500 feet without in any way affecting successful operation. These poles have a two-inch iron pin in their bottom which is fitted into a hole drilled in the granite; for further support the base of the pole is held in place by a

cast-iron shoe also fitted to the rock, and it is then held rigidly in place by small cable guys running from its top to the four corners of a square, the guys being kept taut by a simple device of turnbuckles. Crossing the pole at the top are arms, much like those on a telegraph pole, only stronger, and at the extreme of the top

up by the cables passing through the freight house, hooking themselves on automatically at such distances as the operator prefers, and taken off the cables by a similar device at destination, where the emptied carriers are again hooked on the return cable and sent to the starting-point. One company already reports four or five miles of

this construction in operation over the steepest grades on the Chilkoot route, and promises to shortly have another four miles in operation, which may reasonably be expected by the middle of May. Another company, with much more extensive plans, has just gotten started on the construction of one of these lines to run from its own dock, built two miles out from Dyce, through to Lake Lindemann, thus covering the whole of the land trip. They propose to carry articles up to 500 pounds in weight as well as "knock-down" boats.

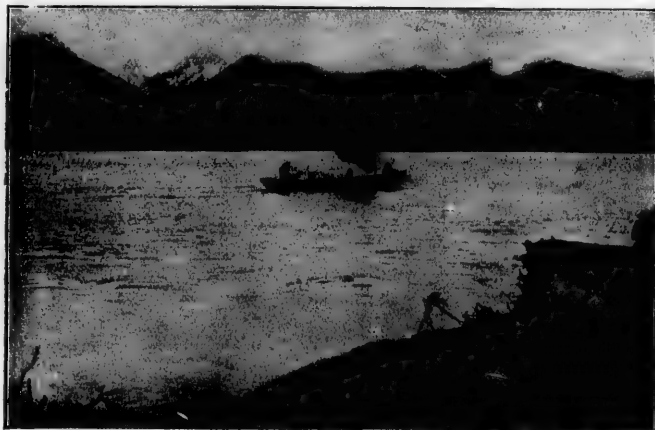
It is believed that the completion of these plans to convey supplies over the

Chilkoot and White Passes in eight hours, instead of five or six weeks, will bring the rate down from forty cents a pound to about ten cents. All the real efforts to handle freight overland are going on at Dyce and Skaguay, and these places are only separated by a neck of land at the head of the arm of the sea known as the Lynn Canal.

#### LOCATING A CLAIM.

The laws governing the location of claims vary on either side of the boundary line, the limit on the Klondike or British side having been reduced since last August from 500 feet in length, running with the stream, and extending from bench to bench to 100 feet in length running with the stream measured from high-water mark outward, or to the bench if it be further. This is the creek or river claim. "Bar diggings" are a strip of land 100 feet wide at high-water mark and extending into the stream to its lowest water-level. "Dry diggings" are simply 100 feet square.

The Klondike and its affluents were staked and are held by the miners under the old law, and any application attempted by Canada of the new law, affecting these miners, is liable to meet with



A CHILKOOT INDIAN CANOE ON THE CHILKOOT RIVER—THE CANOE DUG OUT OF A SINGLE LOG OF COTTONWOOD.

Photo by J. F. Pratt.

arms is the stationary or track cable, made of plow steel one inch in diameter and of great tensile strength. Two feet below the top arm is a second one, carrying on sheaves at its extremities the traction cable of five-eighths inch diameter. This cable is endless and is driven by steam power from a plant located conveniently on the line. The car, or carrier, is suspended on a hanger which rests with two small wheels on the upper cable, and as the hook grips the lower moving cable the car is propelled forward at the rate of 250 feet per minute, making the through trip from Dyce to Lindemann in eight hours. An ingenious construction of the hanger enables the cars to pass the supports.

It is feasible to handle with perfect success this endless cable system for a distance of no more than five miles; consequently the Chilkoot route, which is about twenty-five miles, will require six sections with three power plants, each driving a section in either direction. At the ends of these sections there is an automatic release of the hanger from the cables; it is carried by gravity on a switch of similar construction to the next station, rehooks itself, and the cars continue to destination without rehandling. At the starting-point the loaded waterproof carriers are taken

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were staked and the old law, and made of the new ble to meet with

a stubborn resistance from them, as is also the 10 per cent. proposed as royalty to be put on the output of these older locations. But the Dominion of Canada will probably deal with the problem in a broad and liberal way, as the case would seem to demand. The prospectors were induced under different laws to hunt for gold in its frozen domains, and a law that would be retroactive would simply be bad faith. The new Canadian law also reserves every alternate ten claims for the crown. This reduced-claim area is calculated to dampen the ardor of the argonaut, for at best it reduces his prospects to one-fifth of what was allowed the pioneers. While the American side has not been proven nearly so rich, yet our Government permits the taking up of an equivalent to about twenty acres, or fifteen times as much as on the British side.

#### CANADA'S EQUIVALENT FOR HER EXACTIONS.

Canada also proposes to levy a duty on miners' supplies brought into the Northwest Territory, but the exact amount has not yet been determined from knowledge of the application. For the greater tribute it is true that Canada gives the better service. A claim on that side the boundary can be perfected with more dispatch than on the American side, and she lends assistance readily to open trails to new camps of any considerable size, connecting them with supply points; she has, moreover, a police system and mail service superior to that of Alaska proper.

The miners' meeting is the only government in the interior of Alaska, but it appears nearly to have outlived its usefulness, and with the growth of the country and the introduction of a class of

fold—legislative, judicial, and executive. No provision is made for a governing officer, the whole fabric resting on the great American principle, "majority rules." Universal suffrage is given and all have an equal vote. The method of proceedings is as follows: If a man has a grievance he posts a notice to that effect and calls a meeting for a certain date. At the appointed time the miners of that locality assemble, generally in the open air, and a moderator from their number is appointed. Then the prosecutor presents his case; the defendant answers. Cross-questioning speeches pro and con are made, and



NATIVE-BUILT FISH-TRAPS IN THE CHILKOOT RIVER.

Photo by J. F. Pratt.

in the end some one puts a motion, which is either carried or defeated. If carried, the penalty is imposed without delay.

#### III.—HOW AND WHERE THE GOLD WAS FOUND.

For half a century the existence of gold in Alaska has been known. It was reported by Tebenkof in 1848 and again by the engineer Deroschin in 1851, and from 1848 to 1855 the Russian-American Company spent a large amount of money in active mining operations. A force of forty miners under Lieutenant Deroschin was kept continually at work at the head of the inlet on Kaknoo River and in the Kenai and Prince William mountains. They found gold, but in such small quantities that their enthusiasm gradually waned, and the diggings had been deserted for fifteen or twenty years when the country passed into the hands of the United States. Ten years later Choquette and Carpenter found traces of the precious metal on the Stickeen River, and Prof. W. P. Blake verified this discovery in 1863. In 1873 there was some excitement over a discovery in Southeastern Alaska, but the real



CACHES TO PRESERVE WINTER PROVISIONS.

Re-drawn from photograph.

non-producing adventurers, attracted by the hopes of making their fortunes at the expense of the producers, it is fast becoming a mockery.

The powers of the miners' meeting are three-



history of mining does not begin until 1880, when Joseph Juneau achieved fame in the annals of the country by the first important "find" near the town which now bears his name—as late as 1886 still "a little village of rough cabins."

#### THE GREAT TREADWELL STAMP MILL.

When the excitement over this discovery was at its height, a miner who went by the name of "French Pete" staked a claim on the top of a mountain on Douglas Island. John Treadwell bought the claim for \$400 and built a five-stamp mill, which he later increased to 120 stamps and seven years after the discovery enlarged it to 240 stamps, making the Treadwell the largest mill in the world. The ore is low grade, running about \$3 to the ton and costing about \$1.08 per ton



A CHILKEOT VILLAGE.

Photo by J. F. Pratt.

to extract the bullion, which to-day makes an output of \$1,000,000 a year.

At Sum Dum a ten-stamp mill is at work, and the ore is rated at something like \$100 to the ton.

Just below Juneau, at Sheep Creek, is the Silver Queen Mine, running a ten-stamp mill, and altogether within four miles of Juneau, including the Treadwell, there are nine mills in operation.

Sixty miles above Juneau, toward Lynn Canal, is the Berner's Bay Mine, and there are rich ledges reported on Admiralty Island. These deposits require expensive machinery to even test them properly, and when it extends beyond the prospecting stage is work for large capital only.

R. E. Preston, the Director of the United States Mint, says of the output of gold from Alaska before the Klondike discovery: "The gold product of Alaska thus far has been remarkable rather for its regularity than its amount, and is therefore more favorable to the permanency of

development of the mineral resources than if it were subject to violent fluctuations."

#### ALONG THE YUKON.

For sixty-four years the great Yukon River, "the Mississippi of the North" (which is declared by both Professor Elliott and Mr. Ivan Petroff to discharge "as much if not a third more" water into Bering Sea than the Father of Waters does into the Gulf of Mexico), has been explored by one traveler after another, yet the first signs of gold in the Yukon basin were not brought to light until 1881. These indications on the bars of the Big Salmon River were followed by similar manifestations on the Pelly, Hootalinqua, and Stewart rivers, and gradually placer mines were developed on Forty Mile, Sixty Mile, and Birch creeks, and on Koyukuk River. In 1883, however, the total white population amounted to only fourteen persons, and there is still extant a photograph of thirteen of these forerunners of the present horde. In 1886 Forty Mile Creek was the storm center, an honor wrested from it in 1893 by Birch Creek and the neighboring streams. The following year Circle City, the pioneer of the Yukon mining towns, was founded and became the headquarters for all the miners of the region.

#### KLONDIKE AND BONANZA CREEK.

Early in August, 1896, a California miner named J. F. Butler drifted into the little trading post of Dawson, where some rich strikes had been made on the east bank of the river. He tried the western bank without success, and hearing rumors of great luck on his neighbors' part (they had, in fact, taken out \$40,000 in coarse gold), he crossed the river and began to work up the Klondike, a small tributary stream which the knowing ones had passed by as offering no chances whatever. The latter afterward declared, with all the scorn of the initiated, that it was *chee chaoe* (tenderfoot) luck; but however that may be, Butler took out \$10,000 in ten days from his first prospect hole four miles above Dawson. Almost simultaneously came the Bonanza Creek "strike" by George W. Cormack on August 12. Cormack had an Indian wife, and it is said that his attention was called to this locality by his Indian friends. His first work on the Klondike—a corruption of the Indian word *Thron-diuck*, meaning "fishing grounds"—was primitive, he having to carry the gravel for some distance to water to pan it; but as he, with two other men, washed out \$1,200 in eight days in this fashion, he saw the value of the "find," and returning to Circle City for food, spread the report which left the other Yukon towns deserted. This was in August, 1896, but it was nearly a year before

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the world heard of the discovery and had the proof brought to it on the *Excelsior* and *Portland*, although William Ogilvie, government surveyor, had made reports to Canada, and rumors were broadcast. The *Excelsior* brought down from St. Michael \$500,000 worth of gold, most of it from Forty Mile Creek. A little later the *Portland* sailed into Seattle with \$700,000 of Klondike gold and six of the lucky pioneers on board. Seattle was stirred to its very depths. Five thousand people crowded around the dock, and as the gold came down the gang-plank packed in "blankets, tin cans, canvas sacks, even in the legs of old trousers," the onlookers went wild with enthusiastic excitement. An eye-witness reported that one weather-beaten old fellow was so overcome by this ovation and by the actuality of his good fortune which it impressed upon him that he proceeded to shower among the crowd a handful of nuggets worth some \$300.

The news ran along the western coast like wild-fire. The north pole changed its location to the spot where the one hundred and forty-first meridian crosses the arctic circle for all adventurous spirits—a golden pole toward which every compass pointed. From that day to this the excitement has been increasing, despite the

swarm of daunt- ing and contra- dictory reports which have been floated to meet the public de- mand for news. Since this time the gold that has reached the United States from the Yukon foots up about \$6,000,000.

The gold brought out of the Yukon be- fore the arrival of the *Excelsior* was not consid- erable, authority giving the output of the Yukon basin for the ten years preceding the Klondike discovery at about \$3,000,000, while within two months after the discovery \$5,000,000 were taken out. It must be said, though, that this "two months" is hardly a fair statement. True, it was washed out in that time, but the result also repre- sented much time and labor during the previous eight or ten months in accumulating part of the sands sluiced in that two months. It is interest- ing to know that it took the first eight months of mining in California to get out that amount, under infinitely more favorable climatic conditions.

#### THE GREAT GOLD BELT.

The highest authority on Alaska, Dr. W. H. Dall, of the Smithsonian Institution at Washing- ton, a geologist of note, says: "The gold- bearing belt of Northwestern America contains all the gold-fields extending into British Colum- bia and what is known as the Northwestern Ter- ritory of Alaska. The Yukon really runs along in that belt for five or six hundred miles. The



LOOKING UP THE TLEEHINI VALLEY.

Photo by J. F. Pratt.

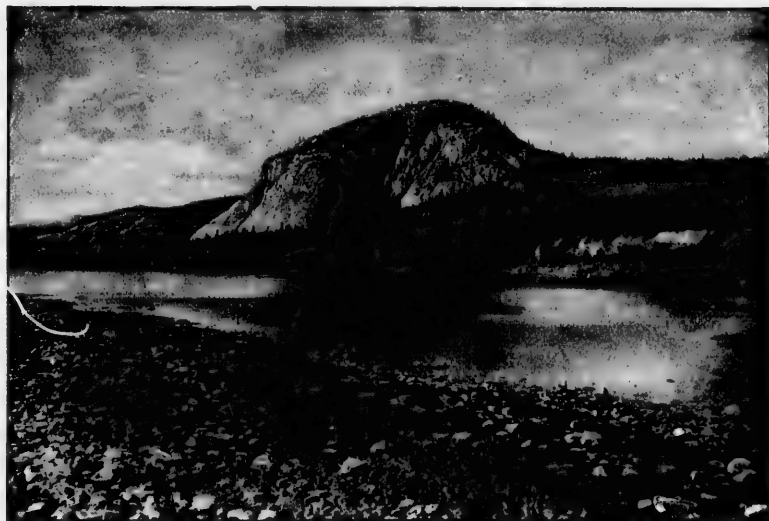
bed of the main river is in the valley. The yellow metal is not found in paying quantities in the main river, but in the small streams which cut through the mountains on either side. Mud and mineral matter are carried into the main river, while the gold is left on the rough bottom of these side streams. In most cases the gold lies at the bottom of thick gravel deposits. The gold is covered with frozen gravel in the winter. During the summer, until the snow is all melted, the surface is covered with muddy torrents. When the summer is over and the springs begin to freeze the streams dry up. At the approach of winter, in order to get at the gold the miners find it necessary to dig into the gravel forma- tion." This is definite and authentic testimony, but the Klondike miners have given me this more intimate explanation of how the gold placers are found and worked.

#### LOCATION OF THE PRECIOUS METAL.

Their experience has taught them this simple rule of nature, that the disintegrations of gold- bearing quartz veins are washed down the steeper declivities, and where the streams assume a more horizontal current form a bed of the small particles of stone and mud and gold (flour, sand, and nug- gets). The constant action of the water moves the lighter of these substances first, with the heavier—the gold—always tending, on account of its weight, to settle deeper and deeper. With this con-



THE GRACEFUL CHILKAT DUGOUT IN TAIYA BAY.



THE "EAGLE'S NEST" ON THE LEWIS RIVER BELOW THE LITTLE SALMON.

(Photo by W. Ogilvie.) By courtesy of the Canadian Magazine.

stant action for ages, it sinks to "bed rock" and lies there in the hollows and against the rough edges, and with its own weight collects and forms the "pay streak." Time has lodged this streak thickest in the concavities of the "bed rock," and the value of a placer is largely dependent on these concavities in the area of a claim; and as this condition is liable to vary with each square yard, it lends the element of chance.

This is what makes it possible—and it is alluring to the gold-hunters—to find a "bed-rock" formation where fissures or a cross-ribbed fault may have served nature as bars, acting just as cleats in a sluice-box. Here the thickness of the "pay streak" may be unusual, and when this condition exists at a point in the stream where the swift current is above and a stagnant current below, it adds to the settlement of gold in these concavities. The reason that the gold seeks the lowest level makes the center of the "bed rock," or the lowest part of the crescent, the receptacle for the most valuable deposits.

#### THE BLIND CHANCES OF PROSPECTING.

But there is another element of chance where the stream may generally be known as rich: The most valuable of these "pay-streak" deposits is on the "bed rock" of the older or more permanent course of the stream, which has in many cases been changed by a landslide or a depression; and it is the "bed rock" of the older course

which holds the cups of gold. For this reason two miners of adjoining claims will often find their fortunes vary, and as there are no sure surface indications "bed rock" must be reached, the "pay streak" disclosed, and its course and limits drifted out. And it is for this reason that often the bench claims, away off to the side of the valley, will show upon digging the shaft that the bed of the older stream lay there.

The general rule is that a locality rich in placer gold is rich in quartz veins, and this will probably be found true in the mountain ranges that feed the Klondike, Indian, and Stewart rivers; but there have been frequent instances where such was not the case, due to a greater erosion, or a detritus formation feeding the streams, or a more constant milling or sluicing by that greatest of all miners, nature. Professor Wright, of Oberlin College, says on this point: "The amount of gold found in the placer mines is evidence not so much perhaps of a very rich vein as of the disintegration of a very large vein."

#### IV.—ALASKA'S HISTORY AND RESOURCES.

The Klondike River is in the Northwest Territory of British Columbia of the Dominion of Canada, but this Northwest Territory got its birth from Alaska and its history grows out of



Alaska. This name, suggested by Charles Sumner, is from the aboriginal word *Al-ak-shak*, and means "a great country." There are clouded records of the discovery of this land by navigators before the time of Vitus Bering, but to him is accorded the first actual exploration and occupation in 1741 when at the head of an expedition sent out by Queen Catherine of Russia, which the ambitious Peter the Great had forwarded with the prime motives of aggrandizement and extending the limits of trade. The country was explored after that along its coast by numerous navigators, but generally with the trading intent, until in 1799 Emperor Paul VIII. of Russia granted a charter to the Russo-American Fur Company to trade with the natives and drive bargains to suit themselves—a privilege renewed in 1839. The trade was in furs and ivory and speedily assumed important proportions. New Archangel, now known as Sitka, was the principal settlement of this company, although they established forty stations at other points on the coast and inland during the sixty-four years of their occupation.

It is said that in 1867 some men who thought they saw profit to themselves in the purchase of these frozen lands approached Secretary William H. Seward with a view to securing his co-operation in making the purchase from Russia; but on investigation Mr. Seward became convinced of the value of the lands to his Government, and opened negotiations with Russia which quickly resulted in the fixing of a price of \$7,200,000 and in the signing of a treaty on March 30, 1867. This treaty was proclaimed June 20, and actual possession taken by the United States, through Gen. Lovell H. Rousseau, United States Army, on October 18, 1867.

#### THE RESOURCES OF THE GREAT NORTHWEST.

Aside from the mineral possibilities in gold, copper, and coal, there are doubtless many other

uses to which much of this vast area may be put. A. P. Swineford, who was Governor of Alaska in 1886, gives evidence in regard to this as follows: "Nowhere in my home travels, from Lake Superior to the Gulf of Mexico, from



TAGISH LAKE AT 4:15 A.M. IN SUMMER.

(Photo by W. Optivie.) By courtesy of the Canadian Magazine.

Washington to Sitka, have I seen more luxuriant vegetation than in Southeastern Alaska. I find the hardier vegetables all growing to maturity and enormous size." The miners from about Dawson City will tell you (the miners who know more things than gold) that gardens will be raised on the arctic circle which, if limited in variety, will yet produce the vegetable needs of the mining population when once intelligent effort is directed to them.

William H. Seward while on his travels around the world wrote from Berlin as follows: "We have seen of Germany enough to show that its climate is neither so genial, nor its soil so fertile, nor its resources of forests and mines so rich as those of Southern Alaska." Miner W. Bruce, long a resident of these coast lands, says: "The great precipitation and humidity of the atmosphere in Southern Alaska cause the entire coast region to be clothed in a mantle of perennial green. Vegetation is dense and forests magnificent. The soil is rich, though in the heavily timbered section it is shallow; and from the most eastern point of the Territory to Kadiak root crops are easily grown. Radishes, lettuce, carrots, onions, cauliflower, peas, turnips, cabbage,

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beets, celery, and potatoes yield prolifically. On one-sixth of an acre at Sitka eighty bushels of potatoes have been raised. It was, however, a plot of ground that had been formerly used by the Russians as a garden and was carefully prepared. Strawberries grow with the greatest spontaneity, and have a flavor equal to those of

ing business, while prosecuted north of Bering Strait, is extensive, there being 75 vessels engaged in the capture and traffic.

#### THE SUPPLY OF GAME.

The game of the country is limited, and will rapidly disappear with the army of Winchester being taken there. Mountain sheep can be killed occasionally after hard hunting, and less often a moose or a bear; on the southern coast there are some deer and elk. The white rabbits are scarce and hard to find. There is also a small gray squirrel found in great numbers. I have seen them crossing a wooded valley in such numbers that I have amused myself by hitting at them with sticks as they scampered about the underbrush, apparently amused at seeing so strange a creature as man,



LOOKING DOWN TAIYA INLET (LYNN CANAL.)

(Photo by W. Ogilvie.) By courtesy of the Canadian Magazine.

southern latitudes. Some extensive fields of strawberries are found under the very shadow of the glaciers, both at Glacier Bay and at Yakutat."

The prevailing varieties of timber in South-eastern Alaska are spruce, hemlock, red and yellow cedar. The spruce and hemlock grow to very large size, frequently being found 100 feet high and 6 to 8 feet in diameter. The yellow cedar is a beautiful wood, takes a high polish, and makes an admirable substitute for mahogany.

There are between thirty and forty salmon canneries in Alaska, representing an investment of more than \$4,000,000. They employ 5,000 or 6,000 people and pack from 600,000 to 800,000 cases a year. This is the greatest industry of the country (excepting the sealing) and is rapidly increasing. The Chinese furnish the best labor in the canneries, for the Tlingit Indian, while industrious to a degree, cannot be depended upon; he is too apt to start off without notice on a prolonged "potlatch" or go berrying or fishing in the height of the salmon run. The whal-

of whom, as they didn't know him, they were not afraid. The Izaak Walton who is enthusiastic enough to travel so far will find a recompense of speckled trout in the coast streams to make him declare that heaven must be somewhere near sixty degrees north latitude. The trout and salmon of the interior streams feed the natives, the pioneers, and the dogs. In the fall every Chilkat Indian's camp presents the appearance of wash-day in the back yard of a city home, with the fish split open, boned, and hung up to dry for the winter food. Does it not seem a waste to dry and salt a six-pound speckled trout to be fed to dogs? But this is what the Indian does.

#### INDIAN FISHERMEN.

He is a rare fisherman, though, one of the most adroit I have ever seen. His method is this: He cuts a stick two inches in diameter and about twelve feet long, to an end of which he attaches, with sinews, a double-pronged hook about three inches across the bend; and for his sport he selects a place in the creek between the

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pool and the riffles. Wading in nearly to his hips, he will reach the pole to the bottom just below the riffles and feel about. Presently you will see him give a deft jerk, with a twist to it, and he lifts out of the water one of those red speckled beauties weighing five or six pounds.

I stood one day on the Taiya River and saw a young buck catch over twenty trout in this fashion in less than an hour, and while I heard anglers say it was an unsportsmanlike proceeding, it impressed me, and I am sure it was the perfection of sportsmanship, for it required a sense of feeling and deft movement of the wrist that comes only from an innate love of capture and long practice. I tried it for an hour and I bruised but one trout and killed him with gashes; the Indian smiled at the pale-face, while looking at his own pile, each one hooked squarely through the center of the body, sideways, with but a little red spot, looking much like its specks, to show where the sharp point had entered and passed through.

#### THE ALASKA INDIANS.

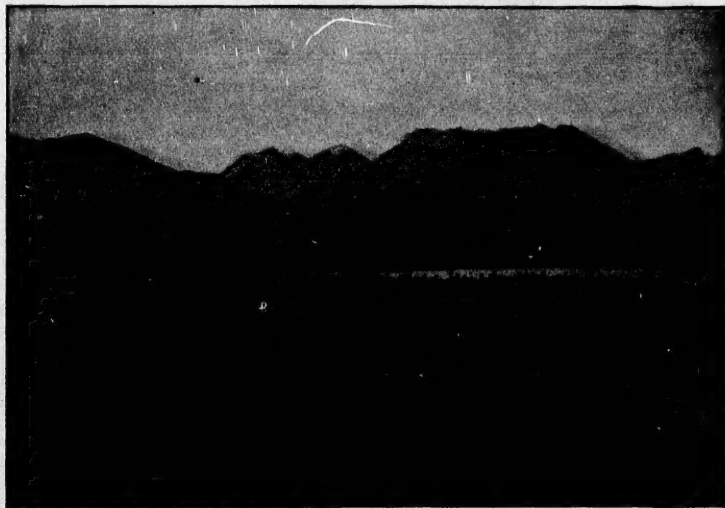
The Indian from the Pacific coast of Lower California to north of St. Michael gradually changes from a lithe, copper-colored warrior to the stockier and lighter-colored man of the Puget Sound coast. He becomes a little shorter and stouter of stature and more placid of temper as you go up the Lynn Canal, while on the Bering Sea coast he is more nearly an Esquimo; on the north coast he is a real Esquimo. Between the two there is still a distinct line, but each has lent his blood to the other as well as his thought and mode of life. These southeast coast people are puzzles to the ethnologists, so many curious distinctions occur between different tribes. The Indians along the southern coast—the Tlingits—are an intelligent, peaceful, and for Indians a thrifty race, especially those who have come in contact with the white man. From Wrangell, Juneau, and

Sitka some of the boys have been sent to the Indian schools in the United States, but they invariably return to their tribes and take up the old life of hunting the moose and bear and fishing and paddling those gondola-like canoes that so gracefully stretch their necks to show their beautiful swaying reflection in the still waters.

I was at Crater Lake last summer—that desert spot across the famous Chilkoot summit—and was discussing with several young men football as played in the Eastern colleges; two in the party had been well-known college players. I noticed that a young Indian "packer" who sat by was listening intently to the talk. At last Voorhees, a half-back from H——, began to tell of a game with the Carlisle Indians, when this young Chilkat said modestly that he had played in that game and had given Voorhees an injury that he had just described. What a small world! There up under the arctic circle these two men of different races met again, but under such different conditions.

#### CHARACTERISTICS OF THE TLINGITS.

These Tlingits are a picturesque people, but it is a wild beauty they put into their dress and into their blankets and boats and baskets. The colors are very rich, the reds and blacks predominating—evidently a tribute from Japan—and the designs are mostly bold stripes. The totem-poles are their chief accomplishments in art, and suggest another borrowing from the Mon-



LAKE LINDEMANN.

(Photo by W. Ogilvie.) By courtesy of the Canadian Magazine.

golian in their grotesque hideousness of expression; but it all takes hold of you as the orgie of a confined but luxurious embodiment of a real art instinct—a desire to express a religious idea, be it ever so fraught with devils. The totem is the “family tree” or genealogy, be-

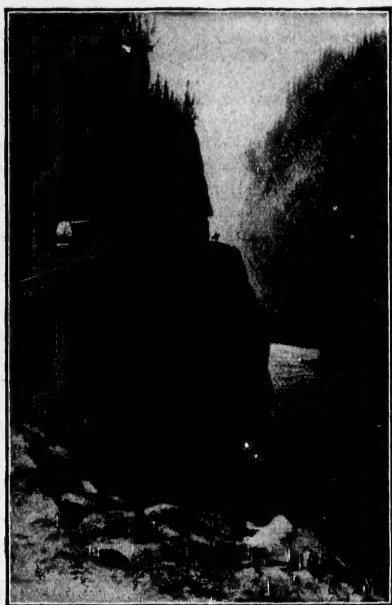
seemed to touch the ground only for graceful poise; in her ears dangled half moons of brass; her eyes were as black as her hair, which copied the Madonnas in its parting. It was Sunday afternoon; church bells were ringing and under her arm was a Bible. She was moving along the path, that skirts the coast at Wrangell, and rows of tall totem-poles were grinning down at her; her destination was the quiet of that house of God, and its quiet was in her eyes. When I noticed her weighted lids and detected a devout clutching of the little Bible, I thought of the traditions of her race and wondered how she reconciled the two, for her very garb carried designs of the inherited religion.

#### THE NOBLE SCENERY.

There has long been a tourist trip to Alaska from San Francisco or Seattle, to Victoria, Wrangell, Juneau, Glacier Bay—where is seen the wonderful Muir Glacier—and returning by Sitka. It has been pronounced one of the most interesting summer voyages that can be made in any seas, but the accommodations have been poor, and there has never been enough business to stimulate the ship companies to make this trip better known to the world.

It is all in quiet waters, except two or three bays which are quickly crossed; thousands of islands lock the coast and much of the trip is in narrow straits glassy with calm. Many places on the route are so narrow that it is like a journey by river, only the current is lacking. One description covers the whole picture, but it is like a great canvas on which one never tires looking, finding always a new beauty in the detail. A vertical sweep of the eye shows below the waters are at the mercy of gentle airs; their robin's-egg blue blends into shadows of green where the rank undergrowth of vine and wild flowers grows to its edge; above is a forest of firs, up, up until a clean line of bare granite begins. This is like a velvet haze and on it hang glaciers, feeding rivulets that dance down from ledge to ledge, making white spots where they show through the green, and all the while singing a joyous song to drown the full-throated birds. And away above and back beyond, until they are lost in the clouds, are mountains and peaks of snow, illimitable and inspiring.

But just now, of all times, the human interest is in the remarkable exodus of the gold-seekers. It has many points of view, and for those to whom the luxuries of a Cunarder are not a necessity, a journey hence during the coming summer will lodge a memory in the mind that will remain forever from its pure novelty.



THE CARIBOO ROAD, NEAR CHAPMAN'S BAR, UPPER FRASER RIVER.

ing a combination of the different tribal insignias. This picturing with the brush or the knife lends itself to every article of use; the horn spoons have a symbol carved on their handles, the pipes take crude shapes of animals and birds that have a religious significance, while conventional forms of horned monsters are woven into their blankets and cut into the medicine man's charms, which are made of human bones, and serpents are painted on the faces of the Indian girls.

The most beautiful creature of a native race I have ever seen was one of these Tlingit girls. She was not more than seventeen, tall enough and lithe enough, with a complexion that was like one of those brown and transparent shadows in a Jouett portrait; wound about her shoulders was a blanket of colors that robbed the deepest tones from the grass and the sunset and it fell gracefully in tassels about her limbs; a skirt of royal red hung above bead-wrought moccasins that



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